Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Original) A compound having the following formula:

wherein

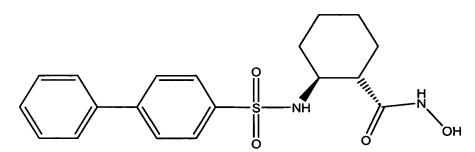
X is $(CH_2)_nO$, $(CH_2)_nS$, $(CH_2)_nNR^1$, $(CH_2)_n(CH_2)$, or CH=CH, wherein n=0,1, or 2; R and R^1 are, independently, a substituted or unsubstitued alkyl, alkenyl, alkynyl, aryl, heteroaryl group, cycloalkyl, heterocycloalkyl, cycloalkenyl, or heterocycloalkenyl; and Z is NH or CH_2 ;

or a pharmaceutically acceptable salt thereof.

- 2. (Original) The compound of claim 1, wherein Z is NH.
- 3. (Original) The compound of claim 1, wherein Z is CH_2 .
- 4. (Currently amended) The compound of <u>claim 2</u>, claims 2 or 3, wherein R is a substituted or unsubstituted aryl or heteroaryl group.
- 5. (Currently amended) The compound of <u>claim 2</u>, claims 2 or 3, wherein R is a substituted aryl group of the following formula:

6. (Currently amended) The compound of claim 2, claims 2 or 3, wherein R is:

- 7. (Currently amended) The compound of claim 2, claims 2 or 3, wherein X is $(CH_2)_n(CH_2)$ and n = 1.
- 8. (Currently amended) The compound of claim 2 claims 2 or 3, wherein X is CH=CH.
- 9. (Original) The compound of claim 1, wherein the compound is



or a pharmaceutically acceptable salt thereof.

10. (Original) The compound of claim 1, wherein the compound is

or a pharmaceutically acceptable salt thereof.

11. (Original) The compound of claim 1, wherein the compound is

or a pharmaceutically acceptable salt thereof.

12. (Original) The compound of claim 1, wherein the compound is

or a pharmaceutically acceptable salt thereof.

13. (Original) The compound of claim 1, wherein the compound is

or a pharmaceutically acceptable salt thereof.

- 14. (Original) The compound of claim 1, wherein the compound is a selective modulator of a MMP.
- 15. (Original) The compound of claim 1, wherein the compound is a modulator of human tumor metastasis.
- 16. (Original) The compound of claim 1, wherein the compound is a modulator of MMP-2, MMP-9, or a mixture thereof, *in vitro*.
- 17. (Original) The compound of claim 1, wherein the compound is a selective inhibitor of a MMP.
- 18. (Original) The compound of claim 1, wherein the compound is an inhibitor of human tumor metastasis.
- 19. (Original) The compound of claim 1, wherein the compound is an inhibitor of MMP-2, MMP-9, or a mixture thereof, *in vitro*.
- 20. (Original) A pharmaceutical composition, comprising the compound of claim 1 and a pharmaceutical carrier.

- 21. (Original) The composition of claim 20, wherein the compound is the compound of claims 9 or 10.
- 22. (Original) The composition of claim 20, further comprising an anti-cancer agent.
- 23. (Original) A method for using the compound of claim 1, comprising administering an amount effective for modulation of a MMP of at least one compound of claim 1 to an environment comprising the MMP.
- 24. (Original) The method of claim 23, wherein the MMP is MMP-2, MMP-9, or a mixture thereof.
- 25. (Original) The method of claim 23, wherein the at least one compound is the compound of claim 9.
- 26. (Original) The method of claim 23, wherein the at least one compound is the compound of claim 10.
- 27. (Original) The method of claim 23, wherein the amount effective for modulation is equivalent to an amount effective for inhibition.
- 28. (Original) The method of claim 27, wherein inhibition is characterized by an IC₅₀ less than about 3000nM.
- 29. (Original) The method of claim 27, wherein inhibition is characterized by an IC₅₀ less than about 200nM.
- 30. (Original) A method for using the compound of claim 1, comprising:
 administering an amount effective for modulation of tumor metastasis of at least one compound of claim 1 to a cell.

- 31. (Original) The method of claim 30, wherein the amount effective for modulation is equivalent to the amount effective for inhibition.
- 32. (Original) The method of claim 30, wherein the cell is a HT-1080 cell.
- 33. (Original) The method of claim 30, wherein inhibition is measured by arrest of tumor invasion.
- 34. (Original) The method of claim 30, wherein inhibition is measured by arrest of tumor angiogenesis.
- 35. (Original) A method for treating a subject with cancer comprising administering an effective amount of the compound of claim 1 to a subject in need of the treatment.
- 36. (Original) The method of claim 35, wherein the cancer is a carcinoma, melanoma, leukemia, or adenoma.
- 37. (Original) The method of claim 35, wherein the compound of claim 1 is part of an anticancer cocktail.
- 38. (Original) The method of claim 35, wherein the subject is a human.
- 39. (Original) A method for preventing cancer in a subject comprising administering an effective amount of the compound of claim 1 to a subject.
- 40. (Original) A method for treating a subject with arthritis comprising administering an effective amount of the compound of claim 1 to a subject in need of the treatment.
- 41. (New) The compound of claim 3, wherein R is a substituted or unsubstituted aryl or heteroaryl group.
- 42. (New) The compound of claim 3, wherein R is a substituted aryl group of the following formula:

wherein
$$R^2$$
 is Br; methoxy; \qquad ; \qquad , wherein $Y = O$, S, or CH_2 ; $(CH_3)_2N$ \qquad 0; \qquad 0; \qquad 0; \qquad 0; \qquad 0

43. (New) The compound of claim 3, wherein R is:

- 44. (New) The compound of claim 3, wherein X is $(CH_2)_n(CH_2)$ and n = 1.
- 45. (New) The compound of claim 3, wherein X is CH=CH.